

# Annual Quality Assurance Report (AQAR) of the IQAC

Academic Year 2011-2012

GOVERNMENT INSTITUTE OF SCIENCE, NIPAT NIRANJAN NAGAR, CAVES ROAD AURANGABAD-431 004, MAHARASHTRA

# The Annual Quality Assurance Report (AQAR) of the IQAC 2011-12

I. Details of the Institution		Part – A					
1.1 Name of the Institution		Government Institute of Science, Aurangabad					
1.2 Address Line 1		NipatNiranjan Nagar					
Address Line 2		Caves Road					
City/Town		Aurangabad					
State		Maharashtra					
Pin Code		431 004					
Institution e-mail address		director@inosca.org					
Contact Nos.		0240-2400586					
Name of the Head of the Institu	ition:	Dr. RavindraRamakantDeshpande					
Tel. No. with STD Code:		0240-2400598					
Mobile:		98233867880					
Name of the IQAC Co-ordinator:		Dr. Aniroodha Vasant Pethkar					
Mobile:	9833494261						
IQAC e-mail address:		iqacgis@gmail.com					

## 1.3 NAAC Track ID(For ex. MHCOGN 18879)

1.4 NAAC Executive Committee No. & Date: (For Example EC/32/A&A/143 dated 3-5-2004. This EC no. is available in the right corner- bottom of your institution's Accreditation Certificate)

1.5 Website address:

www.inosca.org

Web-link of the AQAR:

http://www.inosca.org/naac-reaccreditation-cycle-2.html

MHCOGN11453

September 16, 2004

For ex. http://www.ladykeanecollege.edu.in/AQAR2012-13.doc

1.6 Accreditation Details

Sl. No.	Cycle	Grade	CGPA	Year of Accreditation	Validity Period
1	1 <sup>st</sup> Cycle	B++		2004	2004-2009
2	2 <sup>nd</sup> Cycle				
3	3 <sup>rd</sup> Cycle				
4	4 <sup>th</sup> Cycle				

1.7 Date of Establishment of IQAC : DD/MM/YYYY

15/01/2005

1.8 AQAR for the year (for example 2010-11)

2011-12

1.9 Details of the previous year's AQAR submitted to NAACafterthe latest Assessment and Accreditation by NAAC ((for example AQAR 2010-11submitted to NAAC on 12-10-2011)

i.	AQAR	2005-06 submitted to NAAC on 31/05/2014
ii.	AQAR	2006-07 submitted to NAAC on 31/05/2014
iii.	AQAR	2007-08 submitted to NAAC on 31/05/2014
iv.	AQAR	2008-09 submitted to NAAC on 31/05/2014
v.	AQAR	2009-10 submitted to NAAC on 31/05/2014
vi.	AQAR	2010-11 submitted to NAAC on 31/05/2014

1.10 Institutional Status

University	State Central	Deemed Private
Affiliated College	Yes No	

Constituent College	Yes	No	]		
Autonomous college of UGC	Yes	No	]		
Regulatory Agency approved Instituti	on	Yes	No	✓	
(eg. AICTE, BCI, MCI, PCI, NCI)					
Type of Institution Co-educa	tion	Men	Women [		
Urban	V R	Rural	Tribal		
Financial Status Grant-in-aid	Count in side Salf	C 2(	✓	C 12B	-
1.11 Type of Faculty/Programme	Grant-in-aid + Self	Financing		Self-financing	
Arts Science	Commer	ce 🗌	Law	PEI (PhysEdu)	
				i Li (i nysLuu)	
TEI (Edu) Engi	neering	Health Sci	ence	Management	
Others (Specify)	. Post Graduat	e and Rese	arch Institute	e	
1.12 Name of the Affiliating University (	for the Colleges)			eb Ambedkar a University, Aura	ngabad
1.13 Special status conferred by Central/	State Government	UGC/CSIR/I	DST/DBT/ICMF	R etc	
Autonomy by State/Central Govt. / U	niversity		-		
University with Potential for Excelle	nce	-		UGC-CPE	-
DST Star Scheme		-		UGC-CE	-
UGC-Special Assistance Programme		-		DST-FIST	~
UGC-Innovative PG programmes		-		Any other (Specif	ŷ)
UGC-COP Programmes		-			

# 2. IQAC Composition and Activities

2.1 No. of Teachers	05
2.2 No. of Administrative/Technical staff	01
2.3 No. of students	02
2.4 No. of Management representatives	
2.5 No. of Alumni	01
2. 6 No. of any other stakeholder and	
community representatives	
2.7 No. of Employers/ Industrialists	01
2.8 No. of other External Experts	
2.9 Total No. of members	10
2.10 No. of IQAC meetings held	02
2.11 No. of meetings with various stakeholders:	No. 02 Faculty 02
Non-Teaching Staff /Students	Alumni 1 Others -
2.12 Has IQAC received any funding from UGC during the ye	ar? Yes No 🗸
If yes, mention the amount Not Ap	pplicable
2.13Seminars and Conferences (only quality related)	
(i) No. of Seminars/Conferences/ Workshops/Symposia of	organized by the IQAC
Total Nos. Nil International	National State Institution Level
(ii) Themes Not Applicable	
2.14 Significant Activities and contributions made by IQAC	
Methodology were intu Three faculty member completed orientation University and the Uni Seven seminars/work Microbiology and Bota Faculty members put impact factors. One fa Researcher Award fron Students participated i seminars, debate comp Researc Fellows in	shops were organized by the faculty members of

# 2.15 Plan of Action by IQAC/Outcome

The plan of action chalked out by the IQAC in the beginning of the year towards quality enhancement and the outcome achieved by the end of the year \*

Plan of Action	Achievements
<ul> <li>Encouraging the faculty members to contribute to syllabi designing, revisions and faculty development.</li> <li>Organization of and participation at seminars/workshops/conferences at the state and national level.</li> <li>Focus on research activities to be carried out by staff and students.</li> <li>To encourage students to participate in co- and extra-curricular activities.</li> <li>Designing and implementation of different activities aimed at improvement of student skill and knowledge through invited talks from industry and academia.</li> <li>Arranging and execution of study tour for keeping abreast with recent trends across fields related with the subject.</li> <li>Active promotion of student participation in summer training, national/international symposia, conferences and workshops.</li> <li>To submit infrastructure development proposals to government.</li> </ul>	<ul> <li>Three faculty members completed Refresher Course and one faculty member completed orientation course in Dr. Babasaheb Ambedkar Marathwada University and the University of Calicut.</li> <li>Seven seminars/workshops were organized by the faculty members of Microbiology and Botany Departments.</li> <li>A total of twenty three research students were registered for Ph.D. degree and the work is ongoing. Faculty members published research work in peer reviewed journals with impact factors. One faculty member, Dr. A. N. Dongre achieved the Young Researcher Award from the Ministry of Mines, Government of India.</li> <li>Students participated in a variety of co- and extra-curricular activities such as seminars, debate competitions, conferences, etc. Two students were selected as Researc Fellows in NIMHANS, Bangalore. One student was awarded INSPIRE Fellowship form department of Biotechnology.</li> <li>Proposals for building renovations, extension of building and modular furniture were submitted. Proposals for construction of Guest House, residential quarters for Hostel Rector, landscaping in the Institute campus and electricity works were sanctioned by the government.</li> <li>DST-FIST proposal was sanctioned for development of infrastructure in the Institute.</li> </ul>

\* Attach the Academic Calendar of the year as Annexure.

2.15 Whether	the AQAR was	placed in s	statutory body	Yes	No 🖌	
	Management		Syndicate		Any other body	
1	Provide the detai	ls of the a	ction taken			
			No	t Applicable		

## Criterion – I

## I. Curricular Aspects

## 1.1 Details about Academic Programmes

Level of the Programme	Number of existing Programmes	Number of programmes added during the year	Number of self- financing programmes	Number of value added / Career Oriented programmes
PhD	04			
PG	05			
UG				
PG Diploma				
Advanced Diploma				
Diploma				
Certificate				
Others				
Total	09			
Interdisciplinary	01			
Innovative				

1.2 (i) Flexibility of the Curriculum: CBCS/Core/Elective option / Open options(ii) Pattern of programmes:

	Pattern	Number of programmes	
	Semester	05	
	Trimester		
	Annual		
1.3 Feedback from stakeholders* (On all aspects)	Alumni Paren	ts Employers Students	~
Mode of feedback :	Online Man	ual  Co-operating schools (for PE	EI)

#### \*Please provide an analysis of the feedback in the Annexure

1.4 Whether there is any revision/update of regulation or syllabi, if yes, mention their salient aspects.

- Members of the Teaching Staff hold numerous responsible positions in University appointed committees, take important decisions and thereby contribute to value addition in the teaching-learning process. A list of staff members serving on University committees is given below:
- Dr.S.G. Gupta, chairman, Ad-Hoc Board, Microbiology
- Dr.S.G. Gupta, chairman, Ad-Hoc Board, Biotechnology
- Mr. S.G. Kulkarni, Chairman, Ad-Hoc Board, Biophysics
- Dr. S.M. Deshpande, Chairman, Ad-Hoc Board, Geology
- All the above mentioned staff members were members of committees constituted for the purpose of framing syllabi of the respective PG programs.
- Fourteen subject electives (specializations) were introduced in the M.Sc. Biophysics syllabus framed by departmental faculty.
- A mini project at every semester was introduced in the Biophysics Syllabus.
- A new theory and practical paper on 'Research Methodology and Communication' was introduced in Semester -2 of M.Sc. Biophysics syllabus.

1.5 Any new Department/Centre introduced during the year. If yes, give details.

NO

## Criterion – II

## 2. Teaching, Learning and Evaluation

2.1 Total No. of permanent	Total	A	Asst. Professors Assoc		ciate Pro	iate Professors Professors		ofessors	Others			
faculty	14	0	)7	04		02		01				
2.2 No. of permanent faculty with Ph.D.			13									
2.3 No. of Faculty Positions		Asst. Professors		Associate Professors		Profe	Professors		Others		Total	
Recruited (R) and Vacant (V) during the year	' 	R	V	R	V	R	V	R	V	R	V	
	E	13	08	04	06	02	02	01		20	16	
2.4 No. of Guest and Visiting faculty and Temporary faculty					30	0	00	3	7			

2.5 Faculty participation in conferences and symposia:

No. of Faculty	International level	National level	State level
Attended Seminars/	01	02	
Presented papers	04	07	
Resource Persons		05	

2.6 Innovative processes adopted by the institution in Teaching and Learning:

The students and Staff are encouraged for participate in Conference/Workshops/Symposiums so as to have academic exposure to latest trends in Science.

- Library access to students beyond office hours during exams for better preparation.
- Students have been assigned uniform for the sake of maintenance of discipline.
- Parents Meet is conducted periodically.
- Regular guidance for different competitive exams is given.
- The modern techniques are used for teaching and learning process.
- The social responsibilities are imbibed in the students. The relevant programs are organized by the NSS unit.
- Researchers from other Institutions are allowed to use laboratory and library facilities in the Institute.
- Analytical facilities and consultancies are provided free of cost to Researchers from other Institutions
- Students are guided and motivated to prepare concise but in-depth descriptive cards of terms/concepts pertaining to the syllabus, now popular as the "R R Pattern".



2.11 Course/Programme wisedistribution of pass percentage:

Title of the Programme	Total no. of students		]	Division		
	appeared	Distinction %	Ι %	II %	III %	Pass %
M.Sc. Biophysics	08		100			100
M.Sc. Biotechnology	20		55	32.5	12.5	100
M.Sc. Botany	05		80	20	00	100
M.Sc. Geology	17	5.88	70.58	17.64		94
M.Sc. Microbiology	20		20	60		80

2.12 How does IQAC Contribute/Monitor/Evaluate the Teaching & Learning processes :

The IQAC ensures the following

- Time table is strictly followed
- Teaching record and teaching plan is prepared by the faculty
- Student feedback is obtained
- The self appraisal report of the faculty is evaluated and necessary action is implemented

2.13 Initiatives undertaken towards faculty development 04

Faculty / Staff Development Programmes	Number of faculty benefitted
Refresher courses	03
UGC – Faculty Improvement Programme	
HRD programmes	
Orientation programmes	01
Faculty exchange programme	
Staff training conducted by the university	
Staff training conducted by other institutions	
Summer / Winter schools, Workshops, etc.	
Others	

2.14 Details of Administrative and Technical staff

Category	Number of Permanent Employees	Number of Vacant Positions	Number of permanent positions filled during the Year	Number of positions filled temporarily
Administrative Staff	16	03	13	00
Technical Staff	13	00	13	00

## Criterion – III

## 3. Research, Consultancy and Extension

3.1 Initiatives of the IQAC in Sensitizing/Promoting Research Climate in the institution

- The staff members are encouraged to submit research projects to various funding agencies, pursue research work, and publish papers in peer reviewed and refereed journals participate in and organize conferences.
- The guest lectures by eminent persons are arranged to keep the students abreast of the current developments in the subject.
- Study tours and industrial visits are organized in order to acquaint the students with the application of their theoretical knowledge

### 3.2 Details regarding major projects

	Completed	Ongoing	Sanctioned	Submitted
Number	NIL	02	NIL	NIL
Outlay in Rs. Lakhs	NIL	21.41	NIL	NIL

### 3.3 Details regarding minor projects

	Completed	Ongoing	Sanctioned	Submitted
Number	08	01	NIL	NIL
Outlay in Rs. Lakhs	8.40	15.00		

## 3.4 Details on research publications

	International	National	Others
Peer Review Journals	21	12	
Non-Peer Review Journals			
e-Journals			
Conference proceedings			

## 3.5 Details on Impact factor of publications:

 Range
 Average
 h-index
 Nos. in SCOPUS

3.6 Research funds sanctioned and received from various funding agencies, industry and other organisations

Nature of the Project	Durati Year			e of the Agency	Total grant sanctioned	Received	
Major projects	2011-	14	U	GC	7,91,000		74,800
	2011-			ST	17,88,000		50,000
Minor Projects	2010- 2011-			-WRO -WRO	4,60,000 2,60,000		25,500 78,000
Interdisciplinary Projects		15		- wko 	2,00,000	1,	
Industry sponsored							
Projects sponsored by the							
University/ College							
Students research projects							
(other than compulsory by Univ Any other(Specify)							
Total					32,99,000	23	28,300
3.7 No. of books published i) W	ith ISBN No. ithout ISBN No				Chapters in Edit	ed Books	
3.8 No. of University Departments			n				
τ	JGC-SAP		CA	s 🔽	DST-FIS	ST	
			_				
Ι	OPE				DBT Sc	heme/funds	
	L						
3.9 For colleges Autono	omy			CPE	DBT Sta	ar Scheme	
INCOL					4		· c \
INSPI	KE					Any Other (spo	
	_		1		-		
3.10 Revenue generated through c	oncultonov						
5.10 Revenue generated unough c	onsultancy						
3.11 No. of conferences	T 1		· 1	NT (* 1	<b>C</b> ( )	TT ' '/	0.11
5.11 No. of conferences	Level Number		mational	National	State	University	College
organized by the Institution	Inumber						05
	Sponsoring				UGC, New		UGC XI Plan
	agencies				Delhi		host Institute
3.12 No. of faculty served as expe	rts, chairpersor	is or re	esource pers	sons 0	2		
3.13 No. of collaborations In	ternational	N	Vational	An	y other		
3.14 No. of linkages created durin	g this year			01			
3.15 Total budget for research for	current year in	lakhs:					
From Funding agency 2	328300		Fro	m Manageme	ent of University	//College	
Total 2328300						L	
2328500							

3.16 No. of patents received this year

Type of Patent		Number
National	Applied	
	Granted	
International	Applied	
International	Granted	
Commercialised	Applied	
	Granted	

3.17 No. of research awards/ recognitions received by faculty and research fellows Of the institute in the year

Total	International	National	State	University	Dist	College
01	01					

3.18 No. of faculty from the Institution who are Ph. D. Guides and students registered under them

3.19 No. of Ph.D. awarded to faculty from the Institution

3.20 No. of Research scholars receiving the Fellowships (Newly enrolled + existing ones)



06

23

00

3.21 No. of students Participated in NSS events:

3.24 No. of Awards won in NCC:

 University level
 100
 State level
 - 

 National level
 International level
 - - 

 3.22 No. of students participated in NCC events:
 University level
 - State level
 - 

 3.22 No. of students participated in NCC events:
 University level
 - State level
 - 

 National level
 International level
 - State level
 - 

 3.23 No. of Awards won in NSS:
 University level
 - State level
 - 

 3.23 No. of Awards won in NSS:
 University level
 - State level
 - 

 Awards won in NSS:
 - International level
 - International level
 - 



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3.25 No. of Extension activities organized



3.26 Major Activities during the year in the sphere of extension activities and Institutional Social Responsibility

• The Institute has an NSS unit which is active since many years. The NSS unit conducts social and community services through NSS camps in and around Aurangabad city

#### Criterion – IV

## 4. Infrastructure and Learning Resources

4.1 Details of increase in infrastructure facilities:

Facilities	Existing	Newly created	Source of Fund	Total
Campus area (acres)	25		State Govt.	25
Class rooms	10		State Govt	10
Laboratories	15		State Govt	15
Seminar Halls	02		State Govt	02
No. of important equipments purchased ( $\geq$ 1-0 lakh) during the current year.	06		State Govt	05
Value of the equipment purchased during the year (Rs. in Lakhs)	13,09,834		State Govt	13,09,834
Others				

4.2 Computerization of administration and library

The administration section is partially computerized and therefore computerized mechanism is used for administration and process of admission.

## 4.3 Library services:

	Existing		New	ly added	Total	
	No.	Value	No.	Value	No.	Value
Text Books	6047	1656644.90	313	273446.10	6360	1930091
Reference Books	1956	1223217.10	95	118864.90	2051	1342082
e-Books	N-List	5000/yr	N-List	5000/yr	N-List	5000/yr
	93000+		93000		93000	
Journals	28	483216			28	483216
e-Journals	N-List	5000/yr	N-List	5000/yr	N-List	5000/yr
	4120+		4120+		4120+	
Digital Database						
CD & Video	75		02		77	
Others (specify)						

4.4 Technology up gradation (overall)

	Total Computers	Computer Labs	Internet	Browsing Centres	Computer Centres	Office	Depart- ments	Others
Existing	75					08	66	01
Added	11					01	10	
Total	86					09	76	01

4.5 Computer, Internet access, training to teachers and students and any other programme for technology up-gradation (Networking, e-Governance etc.)

The teachers have basic knowledge of computer operation and all teachers have qualified MH-CIT exam conducted by Government of Maharashtra. The computers are used by the students for preparing presentations and to obtain information from internet. Internet facility is available twenty four hours free of cost. Log books are maintained to record the usage of these facilities.

4.6 Amount spent on maintenance in Rs.:

i) ICT		43,500
ii) Campus Infrastructure and facilities		50,00,000
iii) Equipments		48,837
iv) Others		
	Total :	
		50,92,337

### Criterion – V

### 5. Student Support and Progression

5.1 Contribution of IQAC in enhancing awareness about Student Support Services

Library services are made available for extended hours. Pre university examinations are conducted. Committee is constituted for facilitating scholarship to the students.

5.2 Efforts made by the institution for tracking the progression

Institute has constituted separate committees to cater different support activities. Result record is maintained and analysed.

5.3 (a) Total Number of students			UG 00	PG 165	Ph. D. 23		ners 0					
(b	(b) No. of students outside the state					06				-		
(c	(c) No. of international students					00						
	Men 95 Women						No 70					
				Last Ye	ear					Т	his Yea	r
	General	SC	ST	OBC	Physi Challe		Total	General	SC	ST	OBC	Physically Challenged
								74	39	02	34	
								DNT	NT	EB C	SBC	00
								01	12	00	01	

Demand ratio

Dropout % -00

Total

163

5.4 Details of student support mechanism for coaching for competitive examinations (If any)



5.5 No. of students qualified in these examinations



5.6 Details of student counselling and career guidance

•	Regular meetings of students and teachers are held in the Departments wherein the guidance and counselling is done.
•	The various activities are organized by the Institute to enable the students to develop certain skills Viz. Research projects,
•	The students are provided an access to the computers in the department where they are guided by the teachers for various aspects like in the art of preparing power point presentation for the seminars, preparing posters for participation in conferences etc.
•	Guidance is also given to the students for preparation of competitive examinations like NET/SET/GATE etc.
•	The staff members provide academic and personal counseling to the students as and when needed.
•	The students are guided and encouraged in availing facilities like e-journals, sophisticated instruments and bioinformatics software and statistical software skills

No. of students benefitted

All

5.7 Details of campus placement

	Off Campus		
Number of Organizations Visited	Number of Students Participated	Number of Students Placed	Number of Students Placed
00	00	00	32

# 5.8 Details of gender sensitization programmes

	Nil		

# 5.9 Students Activities

5.9.1 No. of students participated in Sports, Games and other events

State/ University level		National level	International level	
No. of students participated	in cultural events			
State/ University level		National level	International level	
5.9.2 No. of medals /awards won by Sports : State/ University level	students in Sports	, Games and other events National level	International level	
Cultural: State/ University level		National level	International level	

# 5.10 Scholarships and Financial Support

	Number of students	Amount
Financial support from institution		
Financial support from government	81	5,66,204
Financial support from other sources		
Number of students who received International/ National recognitions		

5.11 Student organised / initiatives

Fairs : State/ University level		National level	International level	
Exhibition: State/ University level		National level	International level	
5.12 No. of social initiatives undertaken	h by the students	2		

NIL

Criterion – VI

## 6. Governance, Leadership and Management

5.13 Major grievances of students (if any) redressed

6.1 State the Vision and Mission of the institution

Vision Statement: ACCELERATING SCIENCE EDUCATION FOR HUMAN WELFARE						
To be a world class Science Institution, pursuing for academic and scientific excellence, catering						
to the needs of global community, striving for its harmonious development by inculcating life-						
long learning skills to serve for the socio-economic development having concern for ecology						
and social harmony.						
Mission Statement						
• To develop citizens with scientific temperament, moral and ethical values and multifaceted						
proactive personality by providing quality education.						
• The Institute will opt for autonomy.						
• The Institute will evolve system(s) to provide quality education to suit local, regional,						
National needs and needs that will arise due to globalization.						
• The Institute will grow in multi-directions with innovative approaches to serve community						
at large in front line areas in this new millennium in the field of Science and Technology.						
• The Institute will provide practical based training to cater the needs of the industries.						
• The Institute will develop and strengthen industry-Institute participation directly in						
teaching-learning processes and financial aspects of the Institute.						
• The Institute will start the new departments that will suit its goals, mission and objectives.						
, , , , , , , , , , , , , , , , , , ,						

6.2 Does the Institution has a management Information System

No

6.3 Quality improvement strategies adopted by the institution for each of the following:

- 6.3.1 Curriculum Development
  - The institute follows the curricula approved by affiliating university. •
  - Most of our faculty, being the members/chairman of University Board of •
  - studies/Ad-hoc Boards, are framing the syllabi for courses offered ٠
  - Faculty regularly revises the syllabi with latest updates.

#### 6.3.2 Teaching and Learning

- The infrastructural facilities (class rooms, laboratories, girls' common room, wash rooms, staff rooms, seminar halls, etc.) in every Department are in tune with norms prescribed by the UGC.
- The Departments have basic to advanced infrastructural facilities such as ICT facilities, laboratory equipment, departmental library, meeting rooms, special instrumentation room, inoculation room, chemical rooms, departmental stores room, etc. in order to ensure hassle-free and effective teaching-learning atmosphere.
- The Institute is connected through Virtual Classroom Network with its sister Institutes in Mumbai and Nagpur.
- The provision for ICT enabled advanced audio-visual tools, interactive board etc. are being procured and erected under DST-FIST program.
- Institute achieves quality improvement by organizing lectures and seminars for teachers and students by eminent alumni, technical experts, academicians and administrators from industries/organizations.

#### 6.3.3 Examination and Evaluation

- Affiliating university conducts the final examinations as per prescribed norms.
- Institute has designed and implementing continuous evaluation during curriculum

#### 6.3.4 Research and Development

- Teachers are provided with essential laboratory facilities and carrying out research. They are also encouraged to seek funds from various funding agencies and interact with scientific community through presentation of their research work at conferences, seminars, symposia and workshops.
- Teachers are encouraged to participate in training programs which help in grooming their academic and administrative skills.
- The Institute encourages faculty members to visit foreign countries for academic and research accomplishment and for presenting their research work in International Conferences abroad and recommends names of such faculty members to the Department of Higher Education, Pune for Government permissions.

## 6.3.5 Library, ICT and physical infrastructure / instrumentation

- Teachers and students use the library facility for upgrading their knowledge.
- Online subscription of books and journals is made available through UGC-INFLIBNET to keep the academia abreast of latest literature.

#### 6.3.6 Human Resource Management

- Teachers are motivated to enhance their qualities through attending refresher courses, orientation programs, departmental training programs, summer schools, administrative training, short-term training programs, etc. which helps in grooming up their academic and administrative skills.
- Teachers are entrusted with certain duties and responsibilities in addition to the regular teaching and research activities which has resulted in honing their multitasking abilities. Accordingly various committees like Women Grievance Redressal Cell, staff and student grievance redressal cell, anti-ragging committee, Placement & Training Cell, Student Counselling Cell and Admission Committee, Student Council Committee, Affiliation committee, Prospectus committee, Purchase committee, Scholarship committee, Hostel committee etc. have become instrumental with the help of faculty.
- The non-teaching staff is motivated to attend short term training programs such as those related to the use of computers, etc. They are encouraged to make use of computers and internet facility for administrative work.

#### 6.3.7 Faculty and Staff recruitment

• The faculty & staff recruitment is as per the norms and procedures of UGC & Government Of Maharashtra.

#### 6.3.8 Industry Interaction / Collaboration

- The Institute interacts fruitfully with industries through Placement & Training Cell and consultancy-extension services. This has resulted in significant number of students getting recruited in industries through on-campus and off-campus interviews.
- The Institute regularly invites experts from industries for invited talks and academic interactions with students and faculty members so as to tune up the human resource with present trends in the industrial sectors.
- The alumni working in various industries share their experiences with the students of the Institute and guide them in building the career.
- Educational tours/industrial visits are organized for exposing the students to the latest industry trends.
- The Institute encourages and recommends M.Sc. Part I students to participate in Summer Projects in industrial units during summer vacations. This helps enriching their exposure to in-plant conditions and enhances their prospects in employment.
- Suggestions from industry are invited and included during revisions in the curricula.

#### 6.3.9 Admission of Students

- Advertisements are made in newspapers and on the Institute Website.
- Admissions are processed following rules and regulations of affiliating university

#### 6.4 Welfare schemes for

Teaching	Co-operative society
Non teaching	Co-operative society
Students	

6.5 Total corpus fund generated					
6.6 Whether annual financial audit has been a	lone	Yes	~	No	

6.7 Whether Academic and Administrative Audit (AAA) has been done?

Audit Type	Ex	ternal	Internal		
	Yes/No Agency		Yes/No	Authority	
Academic	No		Yes	DHE, Pune	
Administrative	Yes	A.G. office & J.D H.E Aurangabad	No		

6.8 Does the University/ Autonomous College declare results within 30 days?

For UG Programmes	Yes	No
For PG Programmes	Yes	No

6.9 What efforts are made by the University/ Autonomous College for Examination Reforms?



6.10 What efforts are made by the University to promote autonomy in the affiliated/constituent colleges?

Not applicable

6.11 Activities and support from the Alumni Association

- Each Department has a database of alumni and organizes meetings with the alumni.
- A unique activity is initiated as Alumni lecture series (GISA initiated alumni lecture series) wherein alumni of the institute who have made marks in various walks of life are invited to deliver lectures and have a dialogue with the students about the contribution of the Institute in building their career. This helps to motivate the students.
- The Alumni are invited to share their expertise and deliver some lectures from academic curriculum.
- Alumni activities and support to the Institution and each individual department include announcements and communications about new openings and opportunities available at different institution and industries they are attached with, thus acting as a bridge for ensuring the placement of fresh postgraduates.

6.12 Activities and support from the Parent – Teacher Association

- Parent-teacher association is yet to be established in the Institute. However, parents are invited for feedback on the curriculum. Parents and teachers meet regularly and parents are kept appraised of the Departmental and Institutional activities.
- Each year parents' meet is held in all the Departments. During the meetings, the students, their parents, Director of the Institute, Heads of the Departments and faculty members have a healthy interaction on different issues concerning overall improvement and sustenance of quality in the education being imparted through the different courses in the Institute. A suggestion book is maintained for recording the views of the parents. Teachers give regular feedback to parents regarding the progress of students.

#### 6.13 Development programmes for support staff

- The non teaching staff members are motivated to use computers for the maintenance of the records, admission process and other departmental work.
- They are encouraged to participate training programs.

6.14 Initiatives taken by the institution to make the campus eco-friendly

- Tree plantation programs are organized.
- Campus cleaning programs are organized.
- The Institute has adopted several practices for energy conservation such as minimizing use of energy intensive devices, use of power saving devices, solar equipment and pooling the work elements that are energy intensive.
- Solar powered water distillation unit and water heater are installed to save energy.
- The Institute staff makes minimal use of paper and green-house gas emitting devices. The Institute encourages new tree plantation within the campus and also in the surrounding areas. The NSS unit of the Institute carried out tree plantation on "*Hanuman Tekdi*", a small hillock in the vicinity, which was barren.

#### Criterion – VII

#### 7. Innovations and Best Practices

7.1 Innovations introduced during this academic year which have created a positive impact on the functioning of the institution. Give details.

The students and Staff are encouraged for participate in Conference/Workshops/Symposiums so as to have academic exposure to latest trends in Science.

- Library access to students beyond office hours during exams for better preparation.
- Students have been assigned uniform for the sake of maintenance of discipline.
- Parents Meet is conducted periodically.
- Regular guidance for different competitive exams is given.
- The modern techniques are used for teaching and learning process.
- The social responsibilities are imbibed in the students. The relevant programs are organized by the NSS unit.
- Researchers from other Institutions are allowed to use laboratory and library facilities in the Institute.
- Analytical facilities and consultancies are provided free of cost to Researchers from other Institutions
- Students are guided and motivated to prepare concise but in-depth descriptive cards of terms/concepts pertaining to the syllabus, now popular as the "R R Pattern".

7.2 Provide the Action Taken Report (ATR) based on the plan of action decided upon at the beginning of the year

- Three faculty members completed Refresher Course and one faculty member completed orientation course in Dr. Babasaheb Ambedkar Marathwada University and University of Calicut.
- Seven seminars/workshops were organized by Departments of Microbiology and Botany.
- A total of twenty three research students were registered for Ph.D. degree and the work is ongoing. Faculty members published research work in peer reviewed journals with impact factors. One faculty member, Dr. A. N. Dongre achieved the Young Researcher Award from the Ministry of Mines, Government of India.
- Students participated in a variety of co- and extra-curricular activities such as seminars, debate competitions, conferences, etc. Two students
  were selected as Researc Fellows in NIMHANS, Bangalore. One student was awarded INSPIRE Fellowship form department of
  Biotechnology.
- · Proposals for building renovations, extension of building and modular furniture were submitted. Proposals for construction of Guest House,
- residential quarters for Hostel Rector, landscaping in the Institute campus and electricity works were sanctioned by the government.
- DST-FIST proposal was sanctioned for development of infrastructure in the Institute.

7.3 Give two Best Practices of the institution (please see the format in the NAAC Self-study Manuals)

#### **Best Practice 1**

### 1. Title of the Practice

Providing Experiential Training to the students

## 2. Goal

The Institute nurtures the students in highly interdisciplinary areas of life/biosciences and Earth sciences. Hence, it is essential that in addition to their classroom and laboratory training in the concerned subjects, the students should have an exposure to real world/on-site scenarios to develop integrative approach/strategy and imbibe application oriented approach. The Institute therefore encourages experiential training through arranging various activities, viz. summer projects, industrial trainings, independent handling of research projects, self-designed seminars, participation in National and International conferences, field visits, mine training, hospital demonstrations, industry/institute visits, etc. Competitive exam skill development initiatives and guidance by alumni/invited experts prepare the students for qualifying National level competitive tests.

## 3. The Context

The students admitted in the Institute are mostly from educationally under privileged Marathwada region. They are unaware of their in-built talent and skills. Due to the lack of academic exposure they cannot decide about their career goals and the utility of the subject in which they are trained. Moreover, the students are reluctant in opting the academic career through National/Global level competitive examinations. The Institute has developed extensive pre-admission counseling mechanism to reduce/remove the fear and phobia about higher studies and assist in choice of subject at M.Sc. level. Mere classroom teaching does not effectively eliminate the senile attitude towards their career honing. Therefore the Institute has seriously addressed this problem by designing multi-directional approach that caters self-learning;developing interest, using interdisciplinary, integrative and object-oriented strategy in learning;broadening of knowledge grasp; analyzing situations andinculcating problem solving/solution finding attitude.

#### 4. The Practice

- Explaining concepts orally to audiencefacilitates a deeper understanding of the subject. Knowledge dissemination always catalyzes the knowledge grasp. Keeping this in mind, the Institute motivates the students to design and deliver information/concept-based seminars during their curriculum. The display of synopsis, presentation skeleton, overall organization of the seminar events, evaluative feedback/interactive discussion is completely managed by the students which self-mentor their leadership qualities.
- The linkage between classroom learning and field-experience is established through regular visits to industries, research institutes, hospitals, mines, field visits, etc. Here, the students explore new dimensions in

the practical application of the subject knowledge. Exhaustive interactions on varied queries by the students with field experts stimulate thirst for learning.

- The Institute strongly believes in enrichment of teaching-learning process using research based approach in concerned subjects. As a consequence the students are allotted with mini-research projects as a part of academic curriculum. Students develop research aptitude by familiarizing with research methodology, analytical tools, data analysis, interpretation skills and presentation skills while implementing these projects independently.
- Students are motivated to undertake summer projects/in-plant training in various
  organizations/industries/research laboratories outside the Institute, to give them first-hand experience of the
  organizational settings. They get familiarized with latest trends, quality principles, processing techniques,
  instrumentation, need for documentation and documentation procedures.
- Students participate enthusiastically in National and International conferences, present research papers/posters, interact with the scientific community and develop contacts that may be useful in their future endeavors. This helps in building up their confidence, will-power and morale.
- Real life/on-site experiences shared by the invited experts, faculties, scientists, entrepreneurs, industry personnel and our alumni with our students culminate in imbibing ethical values and personality traits viz. pride towards the Institute, down-to-earth analytical approach, methodologically buffered strategy, descriptive & illustrative approach.
- Exam skill and experience sharing by alumni who have successfully qualified the competitive examinations developed a positive attitude amongst the students. Students have since then opted enthusiastically to appear in the NET/SET/GATE and other competitive examinations.

## 5. Evidence of Success

- Seminars presentations have enriched the qualities within the students, viz. gathering the information, designing the talk/presentation, preparing the display slides using computers, co-assisting the presentations with animations, simulating examples, boldness, confidence, clarity of thoughts, integrating information and logic of bridging the concepts, communication skills, analyzing the questions raised and giving appropriate answers, effective use of audio-visual devices and white-board. As a result students could confidently present papers in conferences and interact with scientific community.
- The knowledge acquired through field exposures, summer projects and research projects could successfully amalgamate the theoretical concepts with practical utility which further assisted them in diagnosing and curing the problems/challenges faced in actual work environment. As a result students had a chance to be in vicinity with National and Global experts in research laboratories/industries from whom they could build their personality and contribute significantly to the growth of their organizations. The coveted positions held by alumni highlight the result of these efforts.
- Moral boosting lectures by alumni/invited experts sharing real life/on-job experiences has thoroughly revolutionized the students' mind with strong will to undertake/handle tough challenging situations. The students visualize& follow these mentors as their Role Models and as a result there is boost in the placement percentage within last couple of years.
- The in-house coaching for competitive examinations has yielded success to several students in opting and tackling the National level competitive examinations.

## 6. Problems Encountered and Resources Required

- The weak academic background and fear within the students poses challenge for the mentoring process. The challenge is further enhanced in case of the economically weaker sections of the students. The strong counseling with little financial assistance at the personal level circumvents these difficulties to certain extent favoring the mentoring process.
- The weak communication abilities consequently leading to shyness within the students was another hurdle in the teaching-learning. The faculty members devoted extra time in building up the communication ability and curb the shyness. The family-like and congenial atmosphere maintained within the Institute further catalyzes the mentoring process.

- Owing to low budgetary provisions, the Institute cannot support economically weaker students for participating in out-station co- and extra-curricular activities. Separate provisions of finances would certainly boost the participation.
- Student-centric activities enlisted in the "Goals" above, if supported with additional financial assistance, can capture momentum and can be extended to needy students from other Institutions as well.

# 7. Notes (Optional) Nil

# 8. Contact Details

Name of the Principal: Dr. R. R. Deshpande Name of the Institution: Government Institute of Science City: Aurangabad Pin Code: 431004 Accredited Status:B++ (2004) Work Phone:+91-240-2400586 Website:<u>www.inosca.org</u> Mobile: +91-9823867880

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#### **Best Practice 2**

#### 1. Title of the Practice

Nurturing value-based education, social responsibilities and good citizenry

#### 2. Goal

With an aim of carving value based education and social awareness amongst the students and facility extension and information dissemination to the community, the Institute has launched various programs, viz. women empowerment program; "*Jagar Janivancha*"; special day programs; blood donation camps; awareness and conservation programsforclean and green environment inclusive water conservationand ecofriendly aspects- tree plantation, check dam construction, solid waste treatment and nutrient recycling;inculcation of valuebased education, socio-sensitivity, and facility extension services like soil analysis, ground water exploration and testing, gamma irradiation, providing microbial culturesas well as popularization of science; voter awareness campaigns.

## 3. The Context

The Institute being a Post Graduate and Research Organization caters the academic needs of the region. In addition to academics, the societal components also expect creation of sensible human resource with high human values and sensitivity towords social climate as well as science-based extension services. In order to bridge the gap between academic training and the societal expectations, the Institute has structured multi-faceted programs that cater socio-sensitivity, environmental awareness and ethical values. In addition, the Institute takes the responsibility to extend the available facilities and expertise to community welfare and nurture scientific temper amongst the community through science popularization programs.

#### 4. The Practice

- Conserving the green areas of the Institute campus to preserve and protect the large number of bird and animal species while ensuring neat, clean and green environment.
- The campus waste is converted into Organic Manure through composting and vermin-culture and is used for gardening and *in-campus* plantation.
- The Institute has conducted numerous community programs within and out of Aurangabad city to create awareness about Solid Waste Disposal.
- Research projects are undertaken with the view towards remedial treatment of toxic and hazardous industrial wastes using microbial and nanotechnology based methods.
- The faculty members have carried out extensive work on the biodegradation and conservation of historical monuments viz. Ajanta and Aurangabad Caves.
- The Institute provides extension services to the community for routineanalysis of water to ensure a healthy community and environment.
- Under the umbrella of the NSS, Institute carries out various environment related activities such as Tree Plantation within and out of the Institute campus, street plays, construction of check dam for water conservation, etc. The Institute has adopted several practices for energy conservation such as use of power saving devices, solar equipment, etc. The Institute organizes guest lectures and poster presentations to stress the important environmental issues and the need to conserve energy, biodiversity and the environment.
- The Institute runs programs such as adoption of villages for tree plantation advocating avoidance of using of pesticides, using organic manure, lectures by experts for rain water harvesting, etc.
- The NSS unit also organizes blood donation and health awareness camps.
- Students voluntarily participated in Disaster Management Relief Fund by fully donating Annual Gathering funds to Tsunami Victims.
- "Jagar Janiwancha", a special lecture series aimed towards inculcating sensitivity and courageous attitude to address societal problems and illiteracy among women was organized by the Institute.
- Enrichment of managerial qualities amongst women was the main aim in hosting a week-long workshop on Women Empowerment under the aegis of UGC.
- In order to pay tributes to National personalities and inculcate the feeling of National Pride and social responsibility, special day programs are organized.
- The Institute extends some facilities and scientific expertise to community. These facilities include soil analysis, ground water exploration and testing, gamma irradiation and supply of microbial cultures to college teachers, researchers and industry.

- The Institute being scientific avenue, dissemination of scientific information to the masses is practiced through mass communication media (radio talks), newspaper articles and organizing National Science Day programs and contribution of faculties as resource persons.
- The Institute actively participates in launching Voter Awareness Campaign at the time of general elections.

## 5. Evidence of Success

- The overall environmental awareness and a strong ecofriendly attitude were imbibed amongst the students. Students could learn composting method and conservation practices for keeping the environment clean and green.
- The Institute received appreciation for the effective implementation of solid waste disposal methods, preservation of cultural heritage and city farming programs organized in community places such as jails, temples, co-operative housing societies, schools, etc.
- The research papers published and presented in scientific congregations have provided additional information content in terms of environmental remediation. Students were equipped with the tools and techniques to develop sustainable and eco-friendly processes and products.
- The community was benefitted through the extension services.
- Tree plantation, check dam construction and CCT activities have created awareness about soil and water conservation.
- The Institute successfully conveyed the importance of avoiding pesticides, use of organic manure and rain water harvesting to the villagers under village adoption programs.
- The awareness about health and precious lives was effectively conveyed through health awareness and blood donation camps.
- Women empowerment program, special day programs, "*Jagar Janiwancha*" and voters awareness campaign have conveyed the message of gender equality, support and respect for women, National pride and social rights and responsibility.
- The Institute has profoundly contributed in popularization of science through various activities and expert lectures benefitting the schools, colleges and general public.

## 6. Problems Encountered and Resources Required

- The students and faculty members being engaged full-time in lectures, practical, projects and mentoring for research, the major limitation to the implementation of these extra-curricular activities is time availability.
- Lack of financial aid for village adoption and other community services was another major obstacle in implementation of these programs.

## 7. Notes (Optional)

Nil

## 8. Contact Details

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Fax: +91-240-2400103 E-mail:director@inosca.org 7.4 Contribution to environmental awareness / protection

- Tree plantation programs are organized.
- Campus cleaning programs are organized.
- The Institute has adopted several practices for energy conservation such as minimizing use of energy intensive devices, use of power saving devices, solar equipment and pooling the work elements that are energy intensive.
- Solar powered water distillation unit and water heater are installed to save energy.
- The Institute staff makes minimal use of paper and green-house gas emitting devices. The Institute encourages new tree plantation within the campus and also in the surrounding areas. The NSS unit of the Institute carried out tree plantation on *"Hanuman Tekdi"*, a small hillock in the vicinity, which was barren.
- The landscaping project is undertaken by Public Works Department, Aurangabad of the State Government for enriching the beauty of the campus.
- A major project has been proposed to the Ministry and Environment and Forest, Govt. of India by the Botany Department for preservation of rare and medicinal trees.
- The Microbiology Department conducted community programs within and out of Aurangabad city to create awareness about Solid Waste Disposal. Research projects in the Microbiology Department are aimed towards treatment of toxic and hazardous industrial wastes using microbial and nanotechnology based methods.
- The Geology Department routinely carries out analysis of water both within the Institute as well as in the local community in order to ensure a healthy community and environment.
- 7.5 Whether environmental audit was conducted?

No

7.6 Any other relevant information the institution wishes to add. (for example SWOT Analysis)

Nil

Yes

#### 8. Plans of institution for next year

- Encouraging the faculty members to contribute to syllabi designing and revisions.
- Establishment "Placement and training Cell" in the institute for providing guidance to the students with respect to admissions, career prospects, preparation for competitive exams, placement and training and personal counseling.
- Motivation to the teaching staff in faculty development programmes.
- Organization of and participation at seminars/workshops/state and regional level.
- Focus on research activities to be carried out by staff and students.
- Motivating faculty members and students to participate in extension activities and community services.
- Providing additional library facilities such as reading room for students and staff, separate newspaper reading facility and open access facility.
- Inviting experts from various fields and alumni for guest lectures, seminars, workshops, conferences.

Name: Dr. A. V. Pethkar



Name: Dr. R. R. Deshpande

Assaturand

Signature of the Chairperson, IQAC

Signature of the Coordinator, IQAC

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